
TW2834 Video QUAD/MUX Controller

For Security Applications

Promotion Board User's Manual

Information may change without notice



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General Description

Overview

This document is a user's manual for the TW2834 Promotion Board. TW2834 Promotion Board is composed of TW2834, SDRAM frame buffer, Micom to control system and two pieces of Rec/Pb feedback slot. This board also provides very easy and convenient GUI interface through the mouse.

Interface

Video Input

VIN1A : Composite video input for VIN1's A path
VIN1B : Composite video input for VIN1's B path (for pseudo 8ch system)
VIN2A : Composite video input for VIN2's A path
VIN2B : Composite video input for VIN2's B path (for pseudo 8ch system)
VIN3A : Composite video input for VIN3's A path
VIN3B : Composite video input for VIN3's B path (for pseudo 8ch system)
VIN4A : Composite video input for VIN4's A path
VIN4B : Composite video input for VIN4's B path (for pseudo 8ch system)

Video Output

Four DAC outputs
- one S-Video (display)
- two CVBS (display and record)

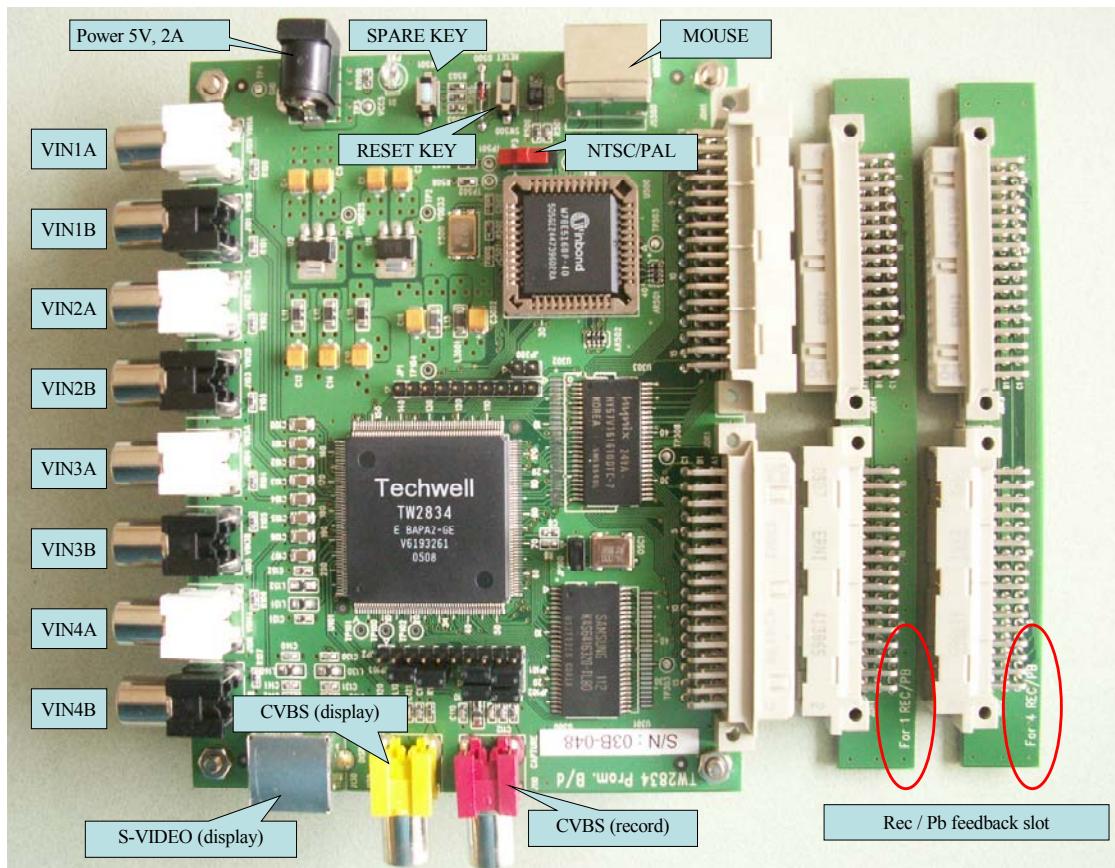
NTSC/PAL System

JP3 : 1-2 for NTSC, 2-3 PAL
After setting this jump, Press reset button to restart system.

Power Line

J1 : 5V DC, 2A

Board Diagram



Operation Description

Mouse Button

There are normally 2 kinds of operation when pushing mouse button.

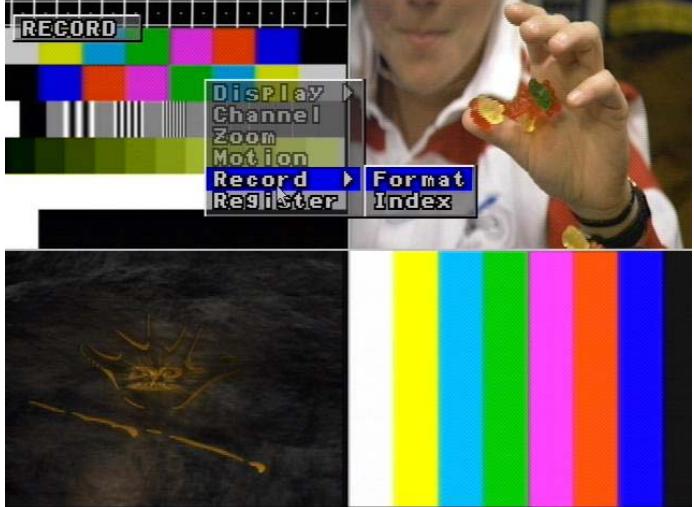
	Left button	Right button
<i>No menu on screen</i>	<ul style="list-style-type: none"> - Freeze / Release Picture - Changing path 	<ul style="list-style-type: none"> - Pop up main menu
<i>Any menu on screen</i>	<ul style="list-style-type: none"> - Enable / Disable menu - Decrease value 	<ul style="list-style-type: none"> - No operation - Increase value

Some special button operation will be explained in the “Register” item and “Queue setup” item in Record format menu.

Main menu description

Main menu consists of 6 items such as Display, Channel, Zoom, Motion, Record and Register. Each item has it's own sub-menu. And 5 items except Register are activated in current path. To go sub-menu, move mouse to item and press left button.

Main Popup Menu (display path)	Item	Description
	Display	<ul style="list-style-type: none"> - Display screen setting - Playback input setting - Playback index setting
	Channel	<ul style="list-style-type: none"> - Source selection - Image enhance
	ZOOM	<ul style="list-style-type: none"> - Zoom control
	Motion	<ul style="list-style-type: none"> - Motion control - Blind control
	Register	<ul style="list-style-type: none"> - Manual register control

Main Popup Menu (record path)	Item	Description
	Record	<ul style="list-style-type: none"> - Record format setting - Queue setup - No video mode setup - Record index setting
	Register	- Manual register control

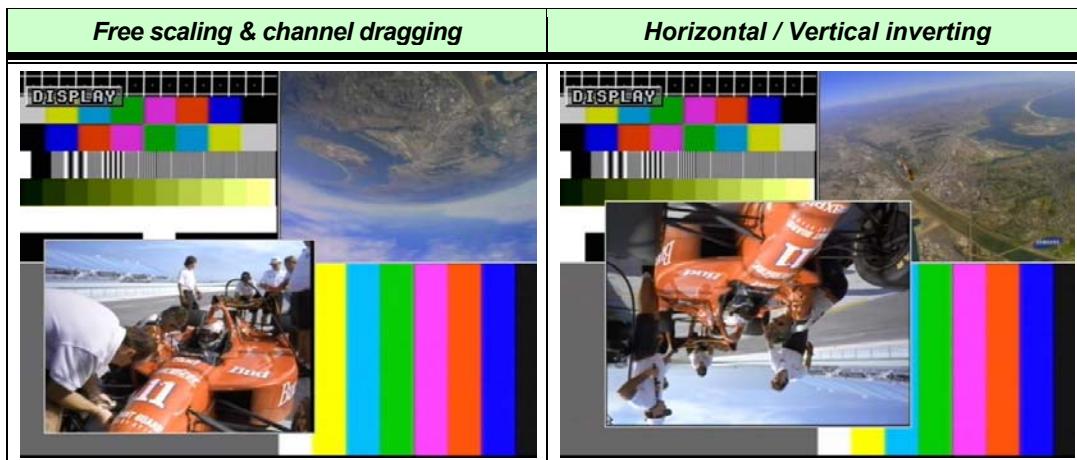
Display Screen menu (X path)

Display Screen Menu	Description
	<ul style="list-style-type: none"> - Full / Quad : in 4 / 16 ch system - Pseudo 8ch : in 4 ch system <ul style="list-style-type: none"> - With Record ◆ Pseudo 8ch with Record is activated in 4 ch system - 16 Split : 16 ch system <ul style="list-style-type: none"> ◆ This is activated in 16ch system - No video mode setting

4 Channel System

Free scaling & dragging

Each channel supports the free scaling, dragging and H / V inverting function via the mouse operation for 4ch system when no menu is activated. The free scaling & dragging can be achieved via pushing left button and moving mouse. When the mouse pointer is located on channel boundary and the left button is pushed, the free scaling is enabled. If the mouse pointer is located on the channel area and the left button is pushed, the channel dragging is enabled.

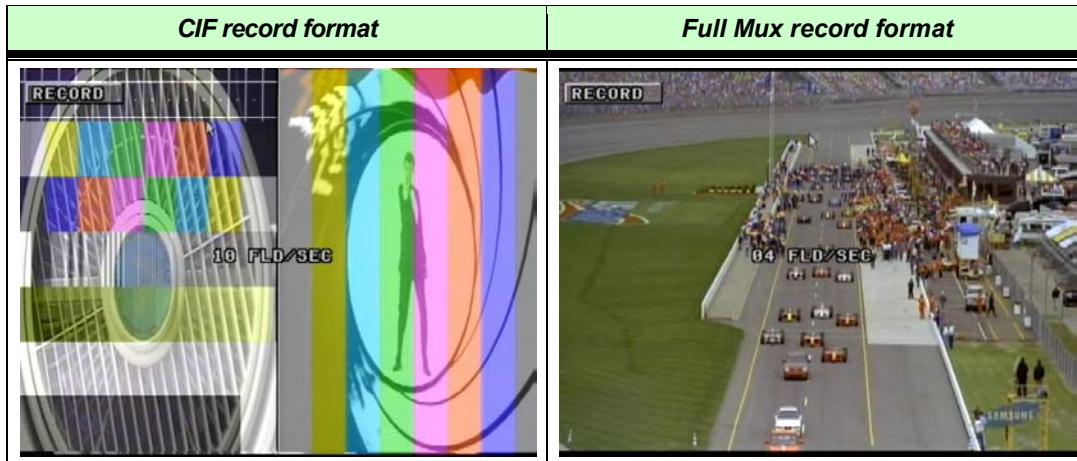


8 Channel System

Pseudo 8ch display format can be selected in this menu. In pseudo 8ch, the picture rate can be varied depending on record format in "With Record" option.

Pseudo 8 ch display format	Description
	<ul style="list-style-type: none"> - Motion detection and free scaling / dragging function cannot be supported in this mode. - The picture rate is displayed on center of screen.

Without record option, the picture rate is the highest for displaying the video. With record option, the picture rate will be decreased because the analog mux switching should be controlled with the consideration of not only displaying but also recording the video.



Play-back input menu (X path)

The playback input format can be defined in this menu.

Playback input	Description
	<ul style="list-style-type: none"> - Same as record : in accord with Record Format menu - Full mux - CIF <ul style="list-style-type: none"> - Frame - Field

Play-back index menu (X path)

The playback index specification can be controlled in this menu.

Playback index	Description
	<ul style="list-style-type: none"> - Same as record : in accord with Record Index menu - Digital index - Analog index - Error correction - Run in clock - Auto detect - H start : 0 ~ 255 - Pixel / bit : 0 ~ 31 - V start : 0 ~ 31 - # of line : 0 ~ 7

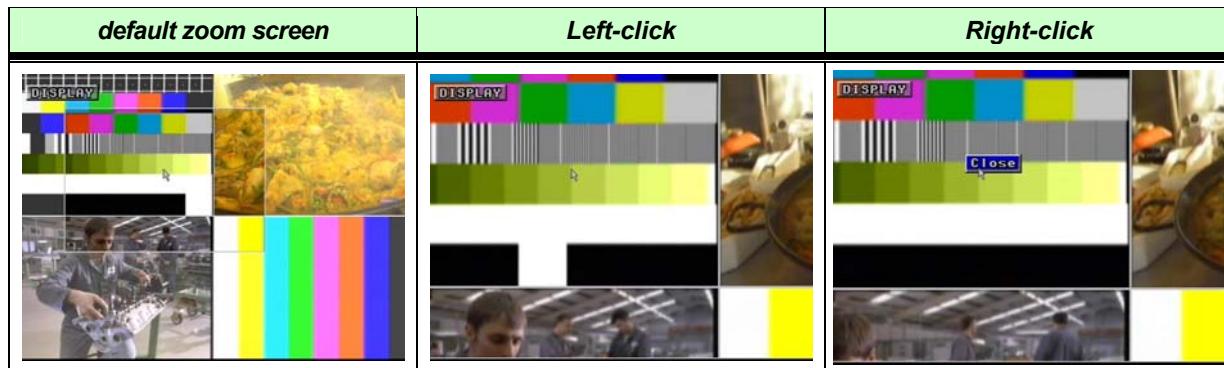
Channel setup menu (X path)

The input source of each channel can be selected in this menu.

Channel setup	Description
	<ul style="list-style-type: none"> - Channel : 0 ~ 3 - Live video : 0 ~ 3 - Playback : 0 ~ 3 <p>◆ To select Playback source, Rec / Pb feedback slot should be connected to JDR1 / JDH1 port and analog index should be enabled in both record and playback index.</p> <ul style="list-style-type: none"> - Enable enhance : Enhancement filter is enabled

Zoom menu (X path)

The zoom function can be controlled in this menu. Zoom area is moved via dragging mouse.

**Motion setup menu (X path)**

The motion and blind detection function can be controlled in this menu.

Motion setup	Description
	<ul style="list-style-type: none"> - Channel : 0 ~ 3 - Cell : 0 ~ 3 - Level : 0 ~ 31 - Velocity : 0 ~ 62 - Spatial : 0 ~ 15 - Temporal : 0 ~ 15 - Display motion - Display mask - Cell : 0 ~ 3 - Level : 0 ~ 15

Record Format menu (Y path)

The record format is controlled in this menu. The Period, Queue setup and No video menu are activated when Full mux record format is selected.

Record Format	Description
	<ul style="list-style-type: none"> - CIF - Frame - Field ◆ Frame/Field menu is inactivated in pseudo 8ch. <ul style="list-style-type: none"> - Full mux - Live - Field - Frame ◆ Live/Field/Frame menu is inactivated in pseudo 8ch. <ul style="list-style-type: none"> - Period : 0 ~ 1023 - Queue setup - No video

Field CIF record format	Full Mux record format
	

Queue setup menu (Y path)

The Queue setup menu is activated when current record format is full mux. Mouse left-click decreases and right-click increases the queue data on each 8 x 8 table.

Queue setup	Description
	<ul style="list-style-type: none"> - Size : 0 ~ 127

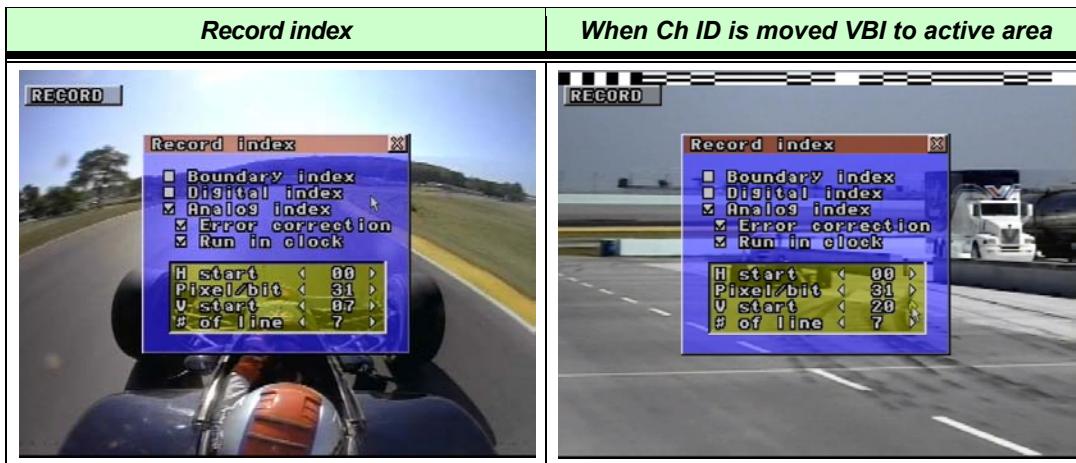
No video menu (Y path)

No video mode for Y path is controlled in this menu.

No video setup	Description
	<ul style="list-style-type: none"> - Bypass - Holding - Blue back - Skip - Auto - Manual

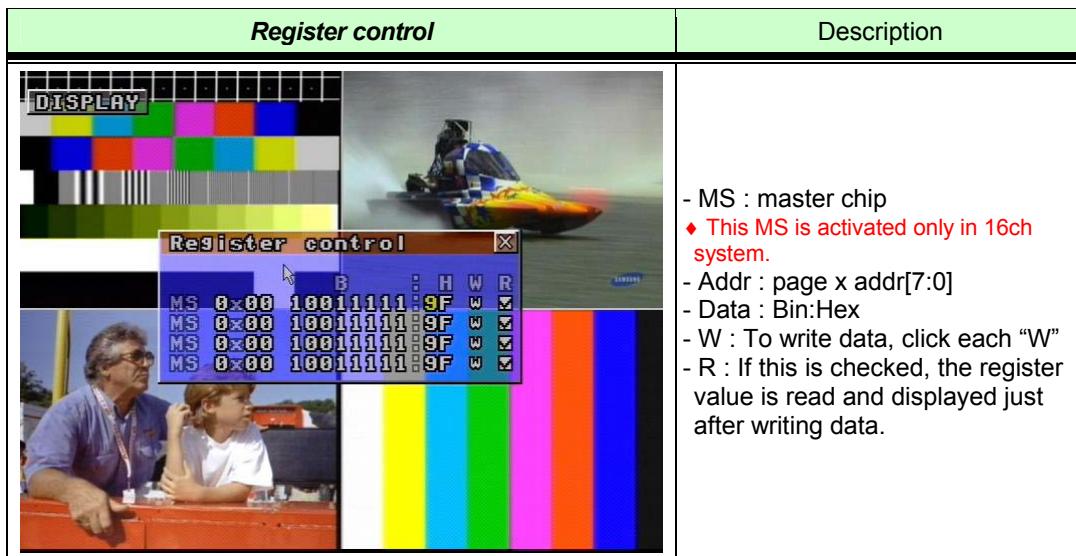
Record index menu (Y path)

The record index specification is controlled in this menu. The control of this menu is almost same as Playback index menu.



Register control menu (Common)

To control register manually is achieved in this menu. Mouse left-click decreases and right-click increases the value on the selected data.



Revision History

Revision	Date	Description
1.0	Mar/ 21 / 2005	Engineering Release